United Nations

FCCC/ASR/2014/CAN

Framework Convention on Climate Change

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# Annual status report of the greenhouse gas inventory of Canada

1. This status report was prepared by the secretariat as part of the initial check of the greenhouse gas inventory submitted in accordance with decision 19/CP.8. It reflects the content of the inventory submission of 2014 as originally submitted by the Party.

2. In this report, the following abbreviations are used:

CRF: common reporting format

LULUCF: land use, land-use change and forestry

NIR: national inventory report

SBDT: sectoral background data tables

SOPU: solvent and other product use

*Notation keys*

C: confidential

IE: included elsewhere

NA: not applicable

NE: not estimated

NO: not occurring

*Gases*

$CO_2$: carbon dioxide

$CH_4$: methane

$N_2O$: nitrous oxide

HFCs: hydrofluorocarbons

PFCs: perfluorocarbons

$SF_6$: sulphur hexafluoride

$NO_X$: nitrogen oxides

CO: carbon monoxide

NMVOCs: non-methane volatile organic compounds

$SO_2$: sulphur dioxide

GE.14-03772 (E)

*1403772*

Please recycle

| GREENHOUSE GAS INVENTORY SUBMISSION | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *General information* | | *Date of receipt* | | *Date of resubmission* | | | *Comments* | | | | |
| | NIR | 11 April 2014 | | | | | | | | | |
| | CRF tables[a] | 11 April 2014 | | | | | | | | | |
| | Additional information[b] | | | | | | | | | | |
| | CRF provided for years | 1990–2012 | | | | | | | | | |
| | Base year or period[c] | 1990 | | | | | | | | | |
| | Gases covered | $CO_2$ | $CH_4$ | $N_2O$ | HFCs | PFCs | $SF_6$ | $NO_X$ | CO | NMVOCs | $SO_2$ |
| | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| *NIR* | Description | The organization of the NIR, in general, follows the structure outlined in the revised UNFCCC reporting guidelines[d] (decision 18/CP.8). | | | | | | | | | |
| | Language of NIR | English | | | | | | | | | |

[a] CRF tables are contained in document FCCC/SBSTA/2006/9, annex II.

[b] Additional information can be any information submitted by a Party in conjunction with the NIR or CRF tables.

[c] Parties included in Annex I to the Convention undergoing the process of transition to a market economy may use a base year or a period of years other than 1990, in accordance with the provisions of Article 4, paragraph 6, of the Convention and decisions 9/CP.2 and 11/CP.4.

[d] "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories" (FCCC/SBSTA/2006/9).

**PART I**

**Provision of information for the latest reported inventory year in the common reporting format: 2012**

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tables* | | *Energy* | | *Industrial processes* | | *SOPU* | | *Agriculture* | | *LULUCF* | | *Waste* | | | | | |
| | Sectoral report tables | 1 | ✓ | 2(I) | ✓ | 3 | ✓ | 4 | ✓ | 5 | ✓ | 6 | ✓ | | | | |
| | | | | 2(II) | ✓ | | | | | | | | | | | | |
| | Sectoral background data tables | 1.A(a) | ✓ | 2(I).A–G | ✓ | 3.A–D | ✓ | 4.A | ✓ | 5.A | ✓ | 6.A | ✓ | | | | |
| | | 1.A(b) | ✓ | 2(II).C | ✓ | | | 4.B(a) | ✓ | 5.B | ✓ | 6.B | ✓ | | | | |
| | | 1.A(c) | ✓ | 2(II).E | ✓ | | | 4.B(b) | ✓ | 5.C | ✓ | 6.C | ✓ | | | | |
| | | 1.A(d) | ✓ | 2(II).F | ✓ | | | 4.C | ✓ | 5.D | ✓ | | | | | | |
| | | 1.B.1 | ✓ | | | | | 4.D | ✓ | 5.E | ✓ | | | | | | |
| | | 1.B.2 | ✓ | | | | | 4.E | ✓ | 5.F | ✓ | | | | | | |
| | | 1.C | ✓ | | | | | 4.F | ✓ | 5 (I) | ✓ | | | | | | |
| | | Bunkers separately | ✓ | | | | | | | 5 (II) | ✓ | | | | | | |
| | | | | | | | | | | 5 (III) | ✓ | | | | | | |
| | | | | | | | | | | 5 (IV) | ✓ | | | | | | |
| | | | | | | | | | | 5 (V) | ✓ | | | | | | |
| | Summary tables | Summary 1.A | ✓ | | | Summary 1.B | ✓ | | | Summary 2 | ✓ | | | | | | |
| | Other tables | Summary 3 | ✓ | | | Table 7 (Key categories) | ✓ | | | Table 9(a) (Completeness) | ✓ | | | | | | |
| | | Table 10 (Trends) | ✓ | | | | | | | Table 9(b) (Completeness) | | | | | | | |
| | Comments | | | | | | | | | | | | | | | | |
| *Totals* | Provided for gases | $CO_2$ ✓ | | $CH_4$ ✓ | | $N_2O$ ✓ | | *HFCs* ✓ | | *PFCs* ✓ | | $SF_6$ ✓ | | | | | |
| | Provided for years | 1990–2012 | | 1990–2012 | | 1990–2012 | | 1990–1992, 1995–2012 | | 1990–2012 | | 1990–2012 | | | | | |
| $CO_2$ | Comparison of $CO_2$ from fuel combustion | *Reference approach* | | *Sectoral approach* | | *Difference more than 2 per cent* | | *If difference is more than 2 per cent* | | | | | | | | | |
| | | ✓ | | ✓ | | | | Explanation provided | | | | | | | | | |
| *HFCs, PFCs, $SF_6$* | Disaggregation by species | | | *HFCs* | | *PFCs* | | *$SF_6$* | | | | | | | | | |
| | | | | ✓ | | ✓ | | | | | | | | | | | |
| | Reporting of actual and/or potential emission estimates in the category consumption of halocarbons and $SF_6$ | | | Actual | Potential | Actual | Potential | Actual | Potential | | | | | | | | |
| | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | | |
| *Notation keys* | *Used in* | *Summary table 1.A* | ✓ | *Sectoral report tables* | ✓ | *Sectoral background data tables* | ✓ | | | | | | | | | | |
| | Comments | | | | | | | | | | | | | | | | |

**PART II**

**Provision of common reporting format tables for years reported**

| | | | | *Years* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *Base year*[a] | *1990* | *1995* | *2000* | *2005* | *2006* | *2007* | *2008* | *2009* | *2010* | *2011* | *2012* | *Information gaps relating to reporting*[b] | *Comments* |
| *Energy* | Sectoral report: Table 1 | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | *SBDT* | Table 1.A(a) | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 1.A(b) | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 1.A(c) | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 1.A(d) | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 1.B.1 | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 1.B.2 | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 1.C | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| *Industrial processes* | Sectoral reports: | | Table 2(I) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | | Table 2(II) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | *SBDT* | Table 2(I).A–G | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 2(II).C | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 2(II).E | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | No numerical data are reported in this table for the years 1993–2012. For these years the notation keys NA and NO are used. |
| | | Table 2(II).F | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | No numerical data are reported in this table for the years 1990–1994. For these years the notation keys NA and IE are used. |
| *SOPU* | Sectoral report: Table 3 | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | *SBDT* | Table 3.A–D | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |

**PART II**

**Provision of common reporting format tables for years reported (continued)**

| | | | Years | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Base year*[a] | *1990* | *1995* | *2000* | *2005* | *2006* | *2007* | *2008* | *2009* | *2010* | *2011* | *2012* | *Information gaps relating to reporting*[b] | *Comments* |
| *Agriculture* | Sectoral report: Table 4 | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | *SBDT* | Table 4.A | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 4.B(a) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 4.B(b) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 4.C | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | No numerical data are reported in this table for the years 1990–2012. For these years the notation keys NO and NA are used. |
| | | Table 4.D | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 4.E | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | No numerical data are reported in this table for the years 1990–2012. For these years the notation key NO is used. |
| | | Table 4.F | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| *LULUCF* | Sectoral report: Table 5 | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | *SBDT* | Table 5.A | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 5.B | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 5.C | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | No numerical data are reported in this table for the years 1990–2012. For these years the notation keys NE and NO are used. |
| | | Table 5.D | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 5.E | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 5.F | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | No numerical data are reported in this table for the years 1990–2012. For these years the notation keys NE and NO are used. |
| | | Table 5(I) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | No numerical data are reported in this table for the years 1990–2012. For these years the notation keys IE and NA are used. |

**PART II**

**Provision of common reporting format tables for years reported (continued)**

| | | Years | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Base year*[a] | *1990* | *1995* | *2000* | *2005* | *2006* | *2007* | *2008* | *2009* | *2010* | *2011* | *2012* | *Information gaps relating to reporting*[b] | *Comments* |
| | Table 5(II) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | No numerical data are reported in this table for the years 1990–2012. For these years the notation keys NA and NO are used. |
| | Table 5(III) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | Table 5(IV) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | Table 5(V) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |

**PART II**

**Provision of common reporting format tables for years reported (continued)**

| | | | Years | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Base year*[a] | *1990* | *1995* | *2000* | *2005* | *2006* | *2007* | *2008* | *2009* | *2010* | *2011* | *2012* | *Information gaps relating to reporting*[b] | *Comments* |
| *Waste* | Sectoral report: Table 6 | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | *SBDT* | Table 6.A | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 6.B | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 6.C | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| *Summary and other tables* | | Summary 1.A | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Summary 1.B | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Summary 2 ($CO_2$ equivalent emissions) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Summary 3 (Methods/emission factors) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 7 (Key categories) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 8(a) (Recalculation – recalculated data) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | | Table 8(b) (Recalculation – explanatory information) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | | Table 9(a) (Completeness) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| | | Table 9(b) (Completeness) | | | | | | | | | | | | | | |
| | | Table 10 (Trends) | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |

[a] Parties included in Annex I to the Convention undergoing the process of transition to a market economy are allowed to use a base year or a period of years other than 1990, in accordance with the provisions of Article 4, paragraph 6, of the Convention and decisions 9/CP.2 and 11/CP.4.

[b] The latest recalculated year is the submission year minus 3.

| PART III<br>Provision of information relating to recalculations | | | | | | |
|---|---|---|---|---|---|---|
| Table 8(a) (Recalculated data) | ✓ | Comments | | | | |
| Recalculation reported for years | 1990–2011 | | | | | |
| Recalculated sectors/gases | Energy | Industri... processes | SOPU | Agriculture | LULUCF | Waste |
| $CO_2$ | ✓ | ✓ | | | ✓ | ✓ |
| $CH_4$ | ✓ | | | ✓ | ✓ | ✓ |
| $N_2O$ | ✓ | | | ✓ | ✓ | ✓ |
| HFCs | | ✓ | | | | |
| PFCs | | ✓ | | | | |
| $SF_6$ | | ✓ | | | | |
| Table 8(b) (Explanatory information) | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Percentage difference in aggregate greenhouse gas emission | | Base year estimate:[a] | With LULUCF: | -1.81% | Without LULUCF: | -0.03% |
| | | Latest recalculated year:[b] | With LULUCF: | -1.4% | Without LULUCF: | -0.08% |

[a] Parties included in Annex I to the Convention undergoing the process of transition to a market economy are allowed to use a base year or a period of years other than 1990, in accordance with the provisions of Article 4, paragraph 6, of the Convention and decisions 9/CP.2 and 11/CP.4.

[b] The latest recalculated year is the submission year minus 3.